375 Field Communicator

THE 375 FIELD COMMUNICATOR:

- *Universal - HART® and FOUNDATION™ fieldbus*
- *User upgradeable*
- *Intrinsically safe*
- *Rugged and reliable*
- *Interfaces with AMS Suite Intelligent Device Manager*

FIGURE 1. The 375 Field Communicator is designed to support all HART and all FOUNDATION fieldbus devices from all vendors.

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CE

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AMS powers PlantWeb through predictive maintenance using intelligent field devices to improve availability and performance.

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375 Field Communicator

INTRODUCTION

The 375 Field Communicator is the new standard in handheld communicators. Built on over ten years of experience with the HART Communicator, user requirements drove the features of this next generation communicator.

HART users worldwide told us bow to make a better communicator. Fieldbus users said they wanted a portable intrinsically safe communicator that supports all their fieldbus devices.

The result is the universal, user upgradeable, intrinsically safe, rugged and reliable 375 Field Communicator.

FIGURE 2. A fold-away stand provides the correct viewing angle on the bench, and flips up to a locked position for secure hanging in the plant.

Product Description

Building on the experience with the proven HART Communicator, the 375 Field Communicator includes enhancements designed to simplify your work in the field. We designed the 375 Field Communicator user interface around the HART Communicator, leveraging the navigation features users told us the liked. Then we added powerful features including a much larger touch screen, HART Revision 6 support, and the ability to upgrade your 375 Field Communicator onsite using the Internet.

See the difference

The 375 Field Communicator runs on Window CE, a robust, real-time, operating system. The display is 70% larger than that of the 275 HART Communicator and uses transflective technology, making it easy to read in both bright sunlight and in normal lighting. To make sure we covered all conditions, we added a multi-level backlight, allowing the display to be viewed in those areas of your plant with dim light. The touch sensitive display and large physical navigation buttons provide for efficient use both on the bench and in the field.

We made sure that the weight was evenly distributed for comfortable one-handed operation in the field.

It is loaded

The 375 Field Communicator has a processor that is 20 times faster than the 275. It features 32MB of application memory, 64 times more than the 275 HART Communicator. The configuration Expansion Module holds hundreds of device configurations, and it is externally accessible. Enhancements in the battery pack allow a full recharge in 2 hours, 8 times faster than the 275 HART Communicator.

Easy Upgrade keeps your communicator current

If that’s not enough to get your attention, the 375 Field Communicator is also user upgradeable via the Internet. This means it is no longer necessary to send your communicator anywhere to have new device drivers added.

FIGURE 3. Designed not only for use on the bench, the 375 Field Communicator enables you to do those tasks that just have to be done in the field.

Universal - HART and FOUNDATION fieldbus

The 375 Field Communicator is designed to support all HART and FOUNDATION fieldbus devices. If you are familiar with the 275 HART Communicator, used in thousands of plants worldwide for more than ten years, you will appreciate universal HART support in a single intrinsically safe handheld communicator.

The 375 field Communicator can also be used to configure all the FOUNDATION fieldbus devices in your plant. Use it to perform diagnostics for effective start-up and troubleshooting of FOUNDATION fieldbus segments. Create a quality segment by diagnosing the network DC voltage and average noise.

Detect power supply problems by monitoring low frequency noise on a segment. Locate incorrect terminations and faulty devices by diagnosing the communications signal level. No longer do you need to drag a laptop computer out into the plant to communicate with your FOUNDATION fieldbus devices.

With over 600 different HART and FOUNDATION fieldbus devices from more than 100 different vendors, having a single field communicator that works with everything is a big help. So, grab the 375 Field Communicator and go!

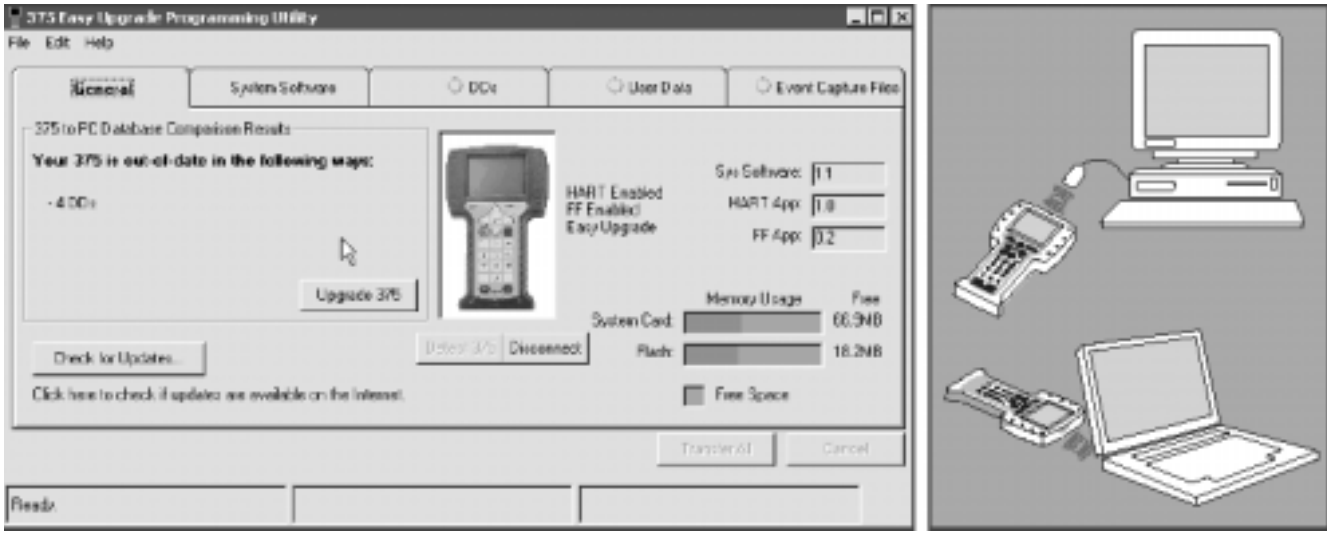

FIGURE 4. Easy Upgrade allows communication between the 375 Field Communicator and a PC using IrDA. The IrDA port enables transfer of configuration data between the 375 and AMS Suite Intelligent Device Manager as well as upgrading the new Device Descriptions and functionality.

User upgradeable

New HART and FOUNDATION fieldbus devices, as well as functional updates to existing devices are introduced continually by device vendors. Keeping up-to-date with the required Device Description drivers for all the devices in your plant can be a real challenge. Now, with the Easy Upgrade option, keeping your communicator updated with the most current Device Descriptions (DD's) is easy.

As new HART and FOUNDATION fieldbus DD's become available, download them form the Internet and upgrade your 375 Field Communicator.

In addition, as functional enhancements to the 375 HART and FOUNDATION fieldbus applications become available, download software updates from the Internet and upgrade your 375 Field Communicator. No longer is it necessary to send your communicator to a service center to have new DD's or software updates added. No longer is it necessary to be without your communicator while you wait for upgrades. Easy Upgrade lets you update your own 375 Field Communicator. On your site, within your control, when it's convenient for you.

375 Field Communicator

Intrinsically Safe

The 375 Field Communicator meets the Intrinsic Safety requirements of the listed regulatory agencies and standards. All of the available Hazardous Locations approvals are provided in a single model option.

- CENELEC/ATEX
- Factory Mutual (FM)
- Canadian Standards Association (CSA)
- FISCO

Even the battery pack is approved for installation in hazardous areas. The 375 Field Communicator is designed for use in areas where laptops shouldn't go.

Rugged and Reliable

It's called 'Field Communicator' for a reason. Some tasks just have to be performed at the device. The 375 Field Communicator is designed for tough use in your plant or mill.

Its large keys and physical navigation buttons allow for one-handed operation, even with your work gloves on. The rugged display is designed to take the knocks and shocks form normal use in the plant.

As for reliable, when was the last time you had to send your HART Communicator in for repair? That's exactly the kind of reliability we've built into the 375. The 375 Field Communicator is designed, manufactured and tested to specifications that are even more demanding. The 375 Field Communicator is designed to go where ever you have to go to get the job done.

Specifications

Processor and Memory Specifications

Microprocessor
80 MHz Hitachi® SH3

Memory Internal Flash
32 MB

System Card
128 MB or higher secure digital card

RAM
32 MB

Expansion Module
32 MB or higher secure digital card

Physical Specifications

Weight
Approximately 2 lb. (0.9mg) with battery

Display
1/4 VGA (240 by 320 pixels) monochrome 3.8 inch (9.6 cm) transflective display with touch screen
Anti-glare coated

Keypad
25 keys including 4 action keys, 12 alphanumeric keys, 4 programmable function keys, on/off, and 4 cursor-control (arrow) keys; membrane design with tactile feedback

Power Supply Specifications

Battery Pack
Rechargeable NiMH batteries

Battery Operating Time
Up to ten hours depending on usage

Battery Charger Options
Input voltage 85-240 VAC, 50/60 Hz
Cables included with U.S., European and U.K. plugs

Connection Specifications

Battery Charger
Mini DIN 4-pin jack

HART and Fieldbus
Three 4mm banana plugs (one common to HART and FOUNDATION fieldbus

IrDA Port
IrDA (Infrared Data Access) port supporting up to 115 Kbps
±15 degrees recommended maximum angle from center line
Approximately 12” (30 cm) recommended maximum distance

Environmental Specifications

Usage
-10°C (14°F) to +50°C (122°F)
0% to 95% RH (non-condensing) for 0°C (32°F) to +50°C (122°F)

Charge
0°C (32°F) to +40°C (104°F)

Storage
-20°C (-4°F) to 55°C (131°F) with batteries

Storage Without Batteries
-20°C (-4°F) to +60°C (140°F)

Enclosure Rating
IP51 (from front)

Shock
Tested to survive a 1-meter drop test onto concrete

Easy Upgrade Requirements

Usage
PC with internet access
CD Rom drive
IrDA port (or adapter)
Windows 2000 or XP

375 Field Communicator

AMS SUITE

Interfaces with AMS Suite Intelligent Device Manager

The 375 Field Communicator is fully compatible with the Intelligent Device Manager, the industry standard for asset management software. In fact, Control Magazine readers selected it as the #1 Calibration Software package for 3 years in a row.

Intelligent Device Manager allows you to configure, streamline calibration, document and troubleshoot HART and FOUNDATION fieldbus devices. AMS uses the intelligence from field devices to create a predictive maintenance environment.

Transfer device configuration data via the infrared port on the 375 Field Communicator and AMS on your PC. Carry your 375 Field Communicator out to the field to configure or update one or many devices. Save device configurations in your 375 Field Communicator for safe storage or transfer to AMS. The optional configuration Expansion Module stores hundreds of device configurations safely in your 375 Field Communicator.

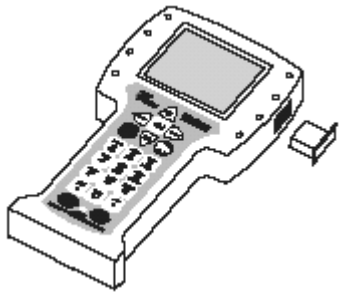

FIGURE 5. The Configuration Expansion Module safety stores hundreds of device configurations.

Together, the 375 Field Communicator and Device Manager enable you to more efficiently manage all of your devices, the assets that are the foundation of your process.

TABLE 1. 375 Field Communicator Spare Parts List

Description	Part Number
Ruggedized 250 Ohm Load Resistor	00275-0096-0001
Rechargeable NiMH Battery Pack with Accessory Case	00375-0002-0011
Power Supply/ Charger (90-240 VAC, 50/60Hz, US/UK/EU connection types included	00375-0003-0011
Lead Set with Connectors	00375-0004-0001
Mounting Straps	00375-0005-0002
Carrying Case (with straps)	00375-0005-0003
Accessory Case (clips to Carrying Case)	00375-0005-0004
Stylus (pack of 5)	00375-0006-0001
IRDA to USB Adapter (1)	00375-0015-0002
Expansion Port Plug	00375-0031-0001
System Card - HART and FOUNDATION fieldbus	00375-0042-0002
System Card - HART with Easy Upgrade Option (2)	00375-0042-0003
System Card - HART and Foundation fieldbus with Easy Upgrade Option (2)	00375-0042-0004
Configuration Expansion Module	00375-0043-0001
Stand and Utility Plate	00375-0044-0001
Getting Started Guide	00375-0045-0001
User's Manual	00375-0047-0001
Resource CD (3)	003745-0049-0001

(1) For use with 375 Interface or 375 Easy Upgrade Programming Utility.

(2) Includes unlimited upgrades to System Card for 3 year period.

(3) Contains 375 Programming Utility and System Software/DD database.

Ordering Information

Model	Product Description
375	Field Communicator (1)
Code	**Communication Protocol**
H	HART
F	HART and FOUNDATION fieldbus
Code	**Battery Type**
R	Rechargeable NiMH Battery Pack
Code	**Power Supply/Recharger**
1	Power Supply/Recharger (90/240 VAC, 50/60Hz, US/UK/EU connection types included)
9	None (2)
Code	**Language**
E	English (standard)
Code	**Approval Certifications**
KL	CENELEC/ATEX, FM, CSA Intrinsically Safe (includes FISCO as applicable)
NA	No Approval
Code	**Easy Upgrade (3)**
U	Power Supply/Recharger (90/240 VAC, 50/60Hz, US/UK/EU connection types included)
9	Not Included
Code	**Options**
	Spare Battery Pack
B	Spare Rechargeable NiMH Battery Pack (4)
	Expansion Module
C	Configuration Expansion Module (5)

(1) Base Model 375 includes Field Communicator Unit, System Card, Leadset with Connectors, Carrying Case, Getting Started Guide, User's Manual, 375 Resource CD, Stylus, and Straps.

(2) This option should only be considered if the user already has a 375 Power Supply/Charger. Note: Only 375 Power Supply/Chargers may be used with the 375 Battery Pack.

(3) The Easy Upgrade capability allows the user to add new System Application software and Device Descriptions (DD's) to the 375. To upgrade without this feature, the System Card must be sent a Service Center.

(4) A fully charged battery pack is capable of delivering power for 8 hours of typical field use. If requirements exceed this specification, a second battery pack is recommended.

(5) The 375 is capable of storing a total of 25 configurations. For increased storage capacity, use the Configuration Expansion Module which is capable of storing in excess of 500 configurations.

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